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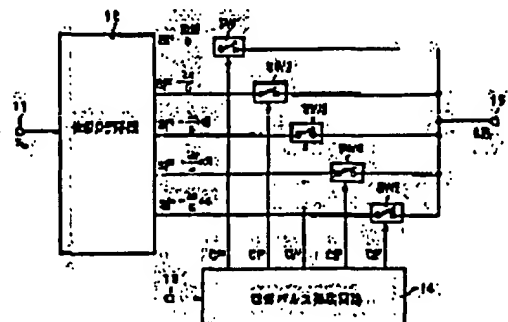
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(54) FREQUENCY CONVERSION CIRCUIT

(57)Abstract:

PROBLEM TO BE SOLVED: To attain a constitution of high designing freedom for a frequency conversion circuit by performing the switching control to successively shift the phases in a fixed direction and synthesizing the output signals of plural switch circuits to output a frequency sum or difference signal between the 1st input signal and the switching pulses.

SOLUTION: The phase of a 1st input signal S_{in} inputted from a signal input terminal 11 is divided into five phases by a phase division means 12 and supplied to the switch circuits SW1 to SW5 as different channel signals $S(5)0$ to $S(5)4$. At the same time, a 2nd input signal is inputted to a 2nd input signal input terminal 13 and then supplied to a switching pulse generation circuit 14 which generates the switching pulses $C(5)0$ to $C(5)4$ of different phases having the widths obtained by dividing a single cycle into 5 pieces. These switching pulses are supplied to the circuits SW1 to SW5 to transmit or prevent the input pulses $C(5)0$ to $C(5)4$. Thus a signal $S(5)_{out}$ obtained by synthesizing the channel signals having the phases delayed every $2\pi/5$, i.e., the difference frequency is outputted to a common output terminal 15.



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